

# Chapter 23: Regular Expressions (RegExp)

## Introduction

JavaScript mein `match()` ek built-in function hota hai jo **search**, **pattern matching**, aur **find & replace** jaise features implement karne ke liye use hota hai.

**RegExp** ka full form **Regular Expression** hota hai. Iska use strings ke andar specific patterns ko find karne ke liye kiya jata hai.

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## Syntax

`/pattern/modifier`

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## Pattern

Pattern ke andar hum wo rules define karte hain jinke basis par matching hoti hai. Kuch common patterns:

- `[a-z]` → lowercase letters
  - `[A-Z]` → uppercase letters
  - `[0-9]` → digits
  - `[^a-zA-Z0-9]` → special characters (letters aur numbers ke ilawa)
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## Modifier

Modifiers matching ke behavior ko control karte hain.

- `g` → **Global matching** (poori string mein sab matches find karta hai)
- `i` → **Case-insensitive matching** (uppercase aur lowercase ka difference ignore karta hai)

### Note:

Case-sensitive matching by default hoti hai.

Agar `i` modifier use na kiya jaye, to matching case-sensitive rahegi.

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## Examples

- `/[a-z]/g` → lowercase letters ki global matching
- `/[A-Z]/i` → uppercase letters ki case-insensitive matching
- `/[!@#$%^&*() , . ? " : { } | < > ] /` → special characters
- `/[^a-zA-Z0-9]/` → non-alphanumeric characters